MSDS No.:PPC-1692

Product Name: STARTER IN IMAGING UNIT

Prepared Date:25-Dec-2000
Revised Date: 27-Jan-2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: STARTER IN IMAGING UNIT
used for: Di200, Di200f, Di250, Di250f, Di251, Di251f, Di350, Di350f, Di351, Di351f

Supplier Identification:

Konica Minolta Business Solutions (Canada), Ltd.
369 Britannia Road East Mississauga, Ontario L4Z 2H5
Telephone: (905)890-6600 Facsimile: (905)283-2511

Emergency Telephone No.

CHEMTREC
Telephone: 1-800-424-9300

WHMIS: This product is NOT subject to the controlled products regulations.

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance [ ] Preparation [X]

Major Ingredients:

[Generic Name]	[CAS No.]	[%]
Magnetite	1317-61-9	60-70
Polyester resin	+++	10-20
Polyester resin	+++	10-20
Styrene acrylate copolymer	+++	1-10
Carbon black	1333-86-4	1-10
Titanium compound	12060-59-2	< 1
Amorphous silica	7631-86-9	< 1

+++: Supplier's confidential information

Hazardous Ingredients:

Chemical Name: Carbon black (1-10%)

CAS No.: 1333-86-4
EEC-No.: 215-609-9
OSHA Z-Tables(USA): 3.5mg/m3
ACGIH-TLV(USA): 3mg/m3
NTP(USA): Not listed
IARC Monographs: Group 2B
California Proposition 65(USA): Listed
Symbol(EC): Not listed
R-Phrase(EC): Not listed
DFG-MAK(GER): III 3B
Worksafe-TWA(Austl): 3mg/m3

3. HAZARDS IDENTIFICATION

Emergency Overview: Black powder (mean dia. is 5 - 15um by volume).
Almost oderless.

Classification: Not classified as dangerous. (1999/45/EC)

Most Important Hazards and Effects of the Products

Ingestion Effect: None currently known.

Inhalation Effect: None currently known. Minimal respiratory tract irritation may occur as with exposure to large amount of any non-toxic dust.

Eye Effect: None currently known.

Skin Effect: None currently known.

Chronic Effects: Prolonged inhalation of excessive dusts may cause lung damage. Use of this product, as intended, does not result in inhalation of excessive dust.

Environment Hazards: No data are available on the adverse effects of this product on the environment.

Specific Hazards: Dust explosion(like most finely divided organic powders)

4. FIRST-AID MEASURES

Ingestion: Wash out mouth with water. Drink one or two glasses of water. If symptoms occur, get medical attention.

Inhalation: Move victim to fresh air immediately. If symptoms occur, get medical attention.

Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. If symptoms occur, get medical attention.

Skin Contact: Wash with water and mild soap.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: CO2, water spray, foam and dry chemical

Extinguishing Media to Avoid: Full water jet

Fire and Explosion Hazards: If dispersed in air, like most finely divided organic powders, may form an explosive mixture.

Protection of Firefighters: Use self-contained breathing apparatus(SCBA).

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: None

Environmental Precautions: None

Methods for Cleaning Up: Wear personal protective equipment(See Section 8). Vacuum or sweep material and place in a bag and hold for waste disposal. Use vacuum equipped with High Efficiency Particulate Air(HEPA) filter. Vacuum should be electrically bonded and grounded to dispel static electricity. To avoid dust generation, do not sweep dry.

7. HANDLING AND STORAGE

Handling

Technical Measures: None

Precautions: Do not breathe dust. Avoid contact with eyes.

Safe Handling Advice: Try not to disperse the particulates.

Storage

Technical Measures: None

Storage Conditions: Keep container closed. Store in a cool and dry place. Keep out of reach of children.

Incompatible Products: None

Packaging Materials: Bottles or Cartridge designated by Konica Minolta.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures

Ventilation: None required with intended use.

Control Parameters(As total dust)

ACGIH-TLV(USA) :	10mg/m3 (Inhalable particles),	3.0 mg/m3 (Respirable particles)
OSHA-PEL(USA):	15mg/m3 (Total dusts),	5.0 mg/m3 (Respirable fraction)
DFG-MAK(GER):	4mg/m3 (Inhalable fraction),	1.5mg/m3 (Respirable fraction)
Worksafe-TWA(Austl.):	10mg/m3	

Personal Protective Equipment

Not required under normal conditions. For use other than in normal operating procedures (such as in the event of large spill), goggles and respirators may be required.

Hygiene Measures: Wash hands after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State: Solid Color: Black

Form: Powder (mean dia. is 5 - 15um by volume)

Odor:	Almost odorless
PH	Not applicable
Boiling Point(°C):	Not applicable
Melting Point(°C)/[F]:	Around 110 - 125 * /[] (Softening Point)
Flash Point(°C):	Not applicable
Ignition Temperature(°C):	> 400 *
Explosion Properties:	No data available
Vapor Pressure:	Not applicable
Specific Gravity:	4
Solubility:	Insoluble in water.
Partition Coefficient, n-Octanol/Water:	Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable except above 200C(392F).
Hazardous Reactions: Dust explosion, like most finely divided organic powders.
Conditions to avoid: Electric discharge, throwing into fire.
Materials to Avoid: Oxidizing materials.
Hazardous Decomposition Products: CO, CO2, and smoke.
Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:
Ingestion(oral), LD50(mg/kg): >2000(Rat) *
Dermal, LD50(mg/kg): No data available
Inhalation, LC50(mg/l): No data available
Eye irritation: Slight conjunctival irritation(Rabbit) *
Skin irritation: Non irritant(Rabbit) *
Skin sensitizer: Non sensitizer (Guinea pig) *
Local Effects: see Chronic Toxicity or Long term Toxicity
Chronic Toxicity or Long Term Toxicity:

In a two-year inhalation study of chronic toxicity and carcinogenicity using a typical toner in rats, there were no lung changes at all in the lowest exposure level (1mg/m3), the most relevant level to potential human exposures. A minimal to mild degree of fibrosis was noted in 22% of the animals at the middle exposure level (4mg/m3), and a mild to moderate degree of fibrosis was observed in 92% of the rats at the highest exposure level(16mg/m3). The lung changes observed in the higher exposure groups are interpreted in terms of "lung overloading", a series of generic responses to the presence of large quantities of respirable, insoluble and relatively benign dusts retained for extended time periods in the lungs. Lung tumor frequency was unchanged among rats exposed to toner at the three exposure levels, and for air-only control rats.

Carcinogenicity

The IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This evaluation is given to Carbon Black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung.

Studies performed in animal models other than rats have not demonstrated an association between carbon black and lung tumors. Moreover, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

Mutagenicity: Negative *(AMES test)
Teratogenicity: No data available

(*= Based on data for other Konica Minolta Products with similar ingredients)

12. ECOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment.

Ecotoxicity: No data available
Mobility: No data available
Persistence and degradability: No data available
Bioaccumulative potential: No data available

13. DISPOSAL CONSIDERATION

When disposing of the waste or recovered material, consult federal, state and/or local regulations for the proper disposal method.

14. TRANSPORT INFORMATION

Information on Code and Classifications According to International Regulations

UN Classification: None
Further information: Not a dangerous good under IATA or IMDG.

15. REGULATORY INFORMATION

US Information

Information on the label: Not required
TSCA(Toxic Substances Control Act):
All chemical substances in this product comply with all applicable rules or order under TSCA.
California Proposition 65:
Ingredient carbon black subject to California Proposition 65 is bound in polymer-matrices so that warnings are not required.

EU Information

Information on the label (1999/45/EC and 67/548/EEC): Not required
Article14 (2.1) of Directive 1999/45/EC is not applicable to this product.

WHMIS(Canada): This product is NOT subject to the controlled products regulations.

16. OTHER INFORMATION

HMIS Rating: The National Paint and Coating Association(USA): Health: 1 Flammability: 1 Reactivity: 0
Recommended Uses: Starter for Electrophotographic Equipment
Explanation of term: IARC 2B means "possible human carcinogen".
Revision Information: Regular revision on revised date.
Literature References:

ANSI Z400.1-1993
ISO 11014-1
Commission Directive 91/155/EEC
IARC(2010): IARC monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 93, Carbon Black, Titanium Dioxide, and Talc, Lyon, pp. 43-191

H.Muhle, B.Bellmann, O.Creutzenberg, C.Dasenbrock, H.Ernst, R.Kilpper, J.C.MacKenzie, P.Morrow, U.Mohr, S.Takenaka, and R.Mermelstein(1991)
Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats. Fundamental and Applied Toxicology 17, pp.280-299.

Restrictions:

The above information is believed to be accurate and represents the best information currently available to Our Corporation. However, Our Corporation makes no warranty with respect to such information, and Our Corporation assumes no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.